

Serial No. 09/273,948

REMARKS

This amendment is intended as a full and complete response to the non-final Office Action mailed November 6, 2002. In the Office Action, the Examiner notes that claims 1 and 3-24 are pending, of which claims 1 and 3-12 are allowed, claims 13, 14, 21 and 24 stand rejected, and claims 15-20, 22 and 23 stand objected to. By this amendment, claims 5, 12, 13, 20, and 24 have been amended, and claims 1, 3-4, 6-11, 14-19, and 21-23 continue unamended.

In view of both the amendments presented above and the following discussion, the applicant submits that none of the claims now pending in the application are indefinite or anticipated under the respective provisions of 35 U.S.C. §112 and §102. Thus, the applicant believes that all of these claims are now in allowable form.

Allowable Subject Matter

The Examiner has objected to claims 15-20, 22 and 23 as being dependent upon a rejected base claim. The Examiner concludes that these claims would be allowable subject matter if rewritten in independent form including all the limitations of the base claim and any intervening claims.

The applicant thanks the Examiner for indicating allowable subject matter with respect to these claims. However, in view of the arguments set forth herein, the applicant believes that base claim 13, as amended, is in allowable form and, as such, dependent claims 15-20, 22 and 23, as they stand, are therefore in allowable condition. Therefore, the applicant respectfully requests that the foregoing objections to claims 15-20, 22 and 23 be withdrawn.

Objections

The Examiner has objected to claims 5 and 12 for various informalities. In response, the applicant has amended claim 5 to change "updated widow size" to "updated window size." Further, the applicant has amended claim 12 to delete the double period at the end of the sentence. Therefore, the applicant respectfully requests that the objections be withdrawn.

Serial No. 09/273,948

Rejections

a. 35 U.S.C. §112

The Examiner has rejected claims 20 and 24 as being indefinite under 35 U.S.C. §112 for failing to particularly point out and distinctly claim the subject matter that the applicant regards as the invention. The applicant respectfully traverses the rejection.

With respect to claim 20, the applicant has amended their limitation of "the transmission window" to "a transmission window." Furthermore, with respect to claim 24, the applicant has amended the feature "the next generated sequence number" to "a next generated sequence number."

As such, the applicant submits that claims 20 and 24, as amended, have proper antecedent basis and fully satisfy the requirements under 35 U.S.C. §112 and are patentable thereunder. Therefore, the applicant respectfully requests that the rejections be withdrawn.

b. 35 U.S.C. §102

The Examiner has rejected claims 13, 14, 21 and 24 as being anticipated by Hurst et al. (U.S. Patent No. 6,151,633, issued July 30, 2002, hereinafter "Hurst"). Applicant respectfully traverses the rejection.

1) Claims 13, 14, and 21

Claim 13 of the applicant's invention recites:

"A data receiver comprising
first apparatus that receives a data packet from a source of data packets and accumulates particular information relating to the transmission of data packets to the receiver via a data network, and
second apparatus that generates a transmission control value as a function of the accumulated information and forwards the generated value as a feedback message to the source so that the source may control its transmission of data messages to the receiver as a function of (a) the transmission control value received from the receiver and (b) transmission control values received by the receiver from other such receivers." (emphasis added).

Serial No. 09/273,948

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984)(citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 U.S.P.Q. 193 (Fed. Cir. 1983)) (emphasis added). The Hurst reference fails to teach each and every element of the claimed invention, as arranged in the claim.

In particular, the Hurst reference merely discloses:

"The sender provides a signaling mechanism to a tree-based hierarchically organized multicast data distribution set-up having multiple repair groups. The tree-based multicast data distribution set-up includes a sender at the root and a plurality of receivers extending from the sender like branches on the tree. The branches are organized into groups called repair groups. Some of the receivers function as the heads of these repair groups. The heads are responsible for servicing repair requests from members of their groups so that the sender is not obligated to service repair requests from all of the receivers in the data distribution set-up.

To determine which receivers should be pruned the sender uses a centralized signaling mechanism that responds to network congestion feedback information from one or more of the receivers. Based on the congestion feedback, the sender recommends that the group heads select candidates for pruning from their groups. Receivers become candidates for pruning if they are slow, not responsive, or request an excessive number of repairs from the group head."

Nowhere in the Hurst reference is there any teaching, or even suggestion, of "second apparatus that generates a transmission control value as a function of the accumulated information and forwards the generated value as a feedback message to the source so that the source may control its transmission of data messages to the receiver as a function of (a) the transmission control value received from the receiver and (b) transmission control values received by the receiver from other such receivers."

That is, "Each receiver ... consolidates congestion control values that it receives from receivers that are positioned at a lower layer in the hierarchy and

Serial No. 09/273,948

directly connected to it (i.e., each of its children) and forwards the consolidated results upward to a receiver position at a next higher layer in the hierarchy (i.e., its parent). A receiver ... which receives consolidated feedback messages from its children processes the congestion control values contained in those messages with its own (local) congestion control value ... to generate a consolidated feedback parameter" (see specification, page 7, lines 3-12).

Thus, the receiver, as defined by the applicant in claim 13, generates a transmission control value as a feedback message to the source where the feedback message includes the transmission control value from the receiver, as well as transmission control values received by the receiver from other such receivers. Therefore, the Hurst reference fails to teach each and every element in the claimed invention, as arranged in the claim.

As such, the applicant submits that claim 13 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Furthermore, claims 14 and 21 depend, either directly or indirectly, from independent claim 13 and recite additional features thereof. As such, and for at least the same reasons discussed above, the applicant submits that these dependent claims are also not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Therefore, the applicant respectfully requests that the rejections be withdrawn.

2) Claim 24

Claim 24 recites:

"A data transmitter comprising
a sequence number generator, and
a controller that (a) inserts the next generated sequence number in a data packet, (b) regulates transmission of the data packet based on a congestion control value determined using either a rate based or window based scheme and (c) transmits said data packet in accordance with said congestion control value to a group of receivers forming a multicast group of receivers, in which the congestion control value is selected from a group of congestion control values received from individual ones of the receivers." (emphasis added).

Serial No. 09/273,948

The Hurst reference fails to teach each and every element of the claimed invention, as arranged in the claim. In particular, the Hurst reference fails to teach or suggest the feature "in which the congestion control value is selected from a group of congestion control values received from the individual ones of the receivers."

As discussed above with respect to independent claim 13, each receiver consolidates congestion control values that it receives from receivers that are positioned at a lower layer in the hierarchy and directly connected to it (i.e., each of its children) and forwards the consolidated result upward to the receiver positioned at the next higher layer in the hierarchy (i.e., its parent). Thus, the receiver receives consolidated feedback messages from its children and possesses the congestion control values contained in those messages with its own (local) congestion control value to generate a consolidated feedback parameter (see specification page 7, lines 3-10). Nowhere is there any teaching or even suggestion in the Hurst reference that a receiver receives feedback information containing control values from other receivers. Therefore, the Hurst reference fails to teach each and every element of the claimed invention, as arranged in the claims.

As such, the applicant submits that independent claim 24 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Therefore, the applicant respectfully requests that the rejection be withdrawn.

CONCLUSION

Thus, the applicant submits that none of the claims presently pending are indefinite or anticipated under the respective provisions of 35 U.S.C. §112 and §102. Consequently, the applicant believes that all of these claims are now in allowable form. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application,

Serial No. 09/273,948

it is requested that the Examiner telephone Steven M. Hertzberg, Esq. or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,



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